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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------|------------------|
| 10/825,524 | 04/15/2004 | Frederick R. Joslin | 67097-027; EH-10863 | 8151 |
| 26096 | 7590 | 07/12/2006 | EXAMINER | |
| CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009 | | | MCDONALD, SHANTESE L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3723 | |

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,524

Applicant(s)

JOSLIN, FREDERICK R.

Examiner

Shantese L. McDonald

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10, 14-17, 19, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) 6, 11-13, 18, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/15/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 22 and 23 recites the limitation "the pump" in lines 2 and 1 respectively.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5,7-10,14-17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al.

Wang et al. teaches a hole drilling method comprising combining water, abrasive particles and a viscosity-enhancing material, being a long-chain polymer, (col. 10, lines 6-36), to form an abrasive suspension working fluid, (col. 9, line 55-col. 10, line 5), pressurizing the working fluid, 21, expelling the pressurized working fluid simultaneously through a plurality of nozzles to produce a plurality of high velocity coherent fluid jets and impinging the plurality of fluid jets simultaneously onto a plurality of target locations for a sustained period until the fluid jet breaks through the target locations to form a plurality of holes, (col. 6, lines 54-58). Wang also teaches storing the working fluid in a

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reservoir, 135, and conducting the working fluid from the reservoir to a pressurizing cylinder wherein the pressurizing cylinder receives the working fluid at a first pressure and discharges it simultaneously through the plurality of nozzles at a second pressure, wherein the second pressure is greater than the first pressure, (col. 11, line 55-col. 12, line 23 and col. 4, lines 37-40). Wang also teaches a jet head comprising a block, 122, having a plurality of conduits, a plurality of nozzles, 123 disposed in the conduits, disposed substantially parallel to each other, (fig. 3), and arranged at an angle with respect to a plane of the block, (fig. 4), and a plenum, 136, to fluidically couple the plurality of nozzles to a feed tube to distribute fluid from the feed tube to the plurality of nozzles, (col. 7, lines 49-53), a plurality of nozzles holder that removably hold the nozzles in the plurality of conduits, (col. 14, lines 7-9), a cover, 130, attached to the block, the plurality of nozzles having an orifice, 75, of a first diameter and a second nozzle having an orifice of a second diameter different from the first, and the plurality of nozzles having an entrance with a first diameter that tapers toward an orifice with a second diameter being smaller than the first, (fig. 9). Wang also teaches a pressure vessel having an isolator, 133, that separates the pressure vessel into a control fluid chamber, (the area around 126 coming from 153), and a working fluid chamber, 135, a pressure source, and a jet head, (col. 6, line 54- col. 8, line 26).

Allowable Subject Matter

Claims 6,11-13,18,20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yie and Lessard were cited to show other examples of jet drillers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shantese L. McDonald whose telephone number is (571) 272-4486. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.L.M.
July 10, 2006



Joseph J. Hail, III
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